

SOME ADDITIONS TO THE VASCULAR FLORA OF NEW HAMPSHIRE. — The presence of the following species in New Hampshire as indigenous or naturalized and well established components of the flora will necessitate some revision of the statements of their ranges in Gray's Manual.

**Aristida tuberculosa** Nutt. This distinctive grass was found on September 17, 1958 by the authors in the township of Seabrook. It occurred along with *Andropogon scoparius* as scattered but very conspicuous individuals on the sandy area that lies between the highway at Seabrook Beach and the marshes of Blackwater River. Only a few collections have been made of this species north of Connecticut though apparently it is common on Plum Island. Also it has been collected at Winter Pond, Winchester and in Winthrop. These seem to be the only stations for it in Massachusetts. Apart from its occurrence on coastal sands *Aristida tuberculosa* turns up again near Lake Michigan and in Minnesota and Iowa. Its absence from Cape Cod, where conditions would seem to be ideal for it raises an interesting question in plant distribution.

**Crotalaria sagittalis** L. A number of plants of the Rattlebox were seen by the authors on September 11, 1958 in the township of Nashua not far from the Merrimack River in sandy soil. The discovery of this species in New Hampshire for the first time comes as no great surprise for it has been collected in the adjacent township of Tyngsboro as well as in numerous other Massachusetts localities in Middlesex and Essex Counties. In view of its occurrence in extreme southeastern Vermont it might also be expected in nearby parts of southwestern New Hampshire.

**Arabidopsis Thaliana** (L.) Heynh. The Mouse-ear Cress occurs here and there in the vicinity of the highway that winds its way toward Newmarket not far from the shores of Great Bay. It grows both in open grassy situations and among ledge-outcrops in varying degrees of shade beneath deciduous trees. The species has at least held its own during the years since 1938 when the junior author first found it.

The question of what constitutes naturalization should be considered in respect to this Durham record. A collection of *A. Thaliana* made by A. S. Pease from a henyard in Exeter in 1913 is present in the herbarium of the New England Botanical Club. Fernald may have felt that one such collection was insufficient to demonstrate even an adventive status. In any event Gray's 8th edition gives the range only to Massachusetts. Here in Durham we have a very different situation: the species is found in considerable quantity in a variety of ecological niches and it has reproduced itself satisfactorily for at least 20 years.

**Hackelia americana** (Gray) Fern. This was discovered by the authors, on a trip under the leadership of Professor A. S. Pease, in Dartmouth College Grant. Previously Professor Pease had found the only New Hampshire station of *Draba lanceolata* Royle on the cliffs of the Diamond Peaks in the Grant. *Hackelia* was found on a talus slope below the cliffs. Both *Draba* and *Hackelia* are essentially northern and calcareous in their affinities. There is one station of *Draba* in Maine, in southeastern Piscataquis county, and two stations in northern Vermont. *Hackelia* is rare in New England, occurring very locally south to central Maine and central Vermont. It is frequent in the calcareous areas of Gaspé. It seems probable that the Diamond Peaks have more available calcium than most New Hampshire rocks.

**Uvularia perfoliata** L. Sumners Falls in Plainfield long has been known as a station for certain calcophiles, such as *Astragalus alpinus* L. and *A. Jesupi* (Egglest. & Sheld.) Britt. A half a mile back from the Connecticut River in Plainfield, the senior author located a stand of mixed hardwoods containing *Uvularia perfoliata* L., *Dentaria laciniata* Muhl., *Orchis spectabilis* L. and some other plants that are rare in New Hampshire. *Uvularia perfoliata* is well distributed in Massachusetts and infrequent in southern Vermont. Its occurrence in Plainfield, which is almost the northern limit, as well as the first state record, may perhaps be accounted for

by the fact that the rich calcareous woods provide an unusually favorable site.

**Dentaria laciniata** Muhl. In addition to the station mentioned above, it also occurs on the talus slope of a cliff in Rumney.

Specimens of all the plants mentioned above have been placed in the New England Botanical Club. — FREDERIC L. STEELE AND A. R. HODGDON, ST. MARY'S-IN-THE MOUNTAINS, LITTLETON, N. H. AND UNIVERSITY OF NEW HAMPSHIRE, DURHAM, N. H.

A NEW MANUAL FOR CALIFORNIA<sup>1</sup>. — The best known work and until now the standard manual covering the entire flora of California has been that of Jepson<sup>2</sup> finally published in 1925. There have been several reissues, since the original, of Jepson's important work and these have served their users well in the decades from 1925 to the present. But even at the time of its appearance, certain limitations in Jepson's Manual were made evident by the fuller and more inclusive treatments of various groups of plants in the parts of several volumes of his own "A Flora of California" then being published. Abrams' Illustrated Flora of the Pacific States, of which we have seen three volumes [the fourth and last volume is nearly ready for release under the authorship of Mrs. R. S. Ferris] has also pointed up the need for improved treatments of various plant groups over the presentation in Jepson's Manual. Officially, the newly published "A California Flora" does not replace Jepson's Manual. However, practically, it does just that and it is as a replacement of the well known Jepson's Manual that we shall consider it in the present review.

Traditionally, a flora or manual attempts to be a guide to the plants growing in a given area. It provides finding-guides in the form of keys to the families, genera, species

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<sup>1</sup> A California Flora by Philip A. Munz in collaboration with David D. Keck. 1-1681. University of California Press, Berkeley and Los Angeles. 1959. \$11.50.

<sup>2</sup> A Manual of the Flowering Plants of California by W. L. Jepson. 1-1238. 1925.